William H. Pickering Publications Collection, 1932-1971
1.03 cubic feet
JPL 133

{PRIVATE }Biography{tc \l 1 "Biography"}

William Hayward Pickering was born in Wellington, New Zealand, December 24, 1910. He received his Bachelor of Science degree from the California Institute of Technology in 1932 and his Master of Science degree, (Physics) in 1933. He was a Coffin Fellow 1933-35 and received his Doctorate degree, (Physics) in 1936. He lectured at California Institute of Technology and the University of Southern California during the intervening years in the fields of physical sciences, electrical engineering, cosmic rays, microwave propagation, cosmic ray engineering, and cosmic ray radio sondes.

Pickering became a naturalized citizen of the United States in 1941 and served in a civilian capacity with the Departments of the Air Force, Navy and Army at various times in his career. Pickering's first lecture at the Industrial College of the Armed Forces was titled "The Jet Propulsion Laboratory with the Army Ordnance Corps."

He was invited to join JPL in 1944 as a result of his experience in the design and use of telemetering devices, which he subsequently developed for the Laboratory's high-velocity research vehicles. Beginning in 1949 he headed the Corporal and Sergeant missile programs, and in 1954 he succeeded Louis Dunn as Director of JPL.

In 1958, a few months after the Soviet Sputnik, JPL successfully launched Explorer 1. That same year, JPL which had been under the direction of the Army, was transferred to NASA with the responsibility for unmanned exploration of the moon and planets. Under Pickering's direction, the Laboratory launched the Ranger missions returning the first close-up, high-resolution pictures of the lunar surface; the Surveyor soft-landers on the moon; the Mariner mission to Mars and Venus; and the first gravity-assist mission to Mercury via Venus. JPL also designed the Viking orbiter to Mars and designed and built the Voyagers for the outer planets mission.

Following his retirement from the Jet Propulsion Laboratory in 1976, he directed the Research Institutes of Saudi Arabia's University of Petroleum and Minerals. He returned to California in 1978 and established the Pickering Research Corporation for space related projects, ranging from a report on nuclear safety to an image processing system in China. In 1983, responding to the energy crisis, he formed Lignetics, Inc., to manufacture wood pellets from wood waste.

Pickering has been awarded many national and international awards and prizes, including the National Medal of Science, Honorary Knight Commander of the British Empire, Spirit of St. Louis Medal of Science, Honorary Knight Commander of the British Empire, Spirit of St. Louis Medal, NASA Distinguished Service Medal, Columbus Gold Medal, the first Francois-Xavier Bagnoud International Aerospace Prize and the Japan Prize, among others. He was a member of the National Academy of Sciences and a founding member of the National Academy of Engineering.

{PRIVATE }Provenance

No records are currently available concerning the provenance of Accession 92-40. It is assumed this collection was called from the Director's Office Files and transferred to the Archives in 1992.**{tc \l 1 "Provenance"}**

{PRIVATE }Collection Description and Arrangement

The collection **{**tc \l 1 "Collection Description and Arrangement"**}**is arranged by subject order roughly in an ascending chronological order into three parts.

1) Various research materials, news reports and correspondence from the National Academy of Science, Pasadena Chamber of Commerce and the Pasadena Science Museum Committee. This includes committee meetings, annual reports, yearly events and various correspondences among

members honoring special invitations.

2) Correspondence, inter-office memos and related materials of the National Space Club and Dr. Pickering's involvement as an associated member. These files show how Dr. Pickering peers honored his status in the Aerospace Industry and considered his opinion and judgement in determining the Annual Astronautics Engineer Award.
3) The remainder constitutes Pickering's work on atomic energy, cosmic rays, missiles, rockets and space flight. Also, it includes his California Institute of Technology doctoral thesis *A Geiger Counter Study of the Cosmic Radiation,* 1936. As a Coffin Foundation Research Fellow he co-wrote with Brian O. Sparks *A Study of the Scattering of Cosmic Rays.* 1933, (see folder 39).

A few black and white photographic prints are included in the collection.

{PRIVATE }Conservation/Preservation{tc \l 1 "Conservation/Preservation"}

Newspaper clippings were photocopied onto acid-free archival paper.

Separation Statement

No material was separated from the collection. However, there were some duplicated items discarded.

{PRIVATE }File Folder List{tc \l 1 "File Folder List"}

File titles were retained as originally found.

{PRIVATE }BOX 1{tc \l 2 "BOX 1"}

Fld 1 *Geiger Counter and Cosmic Radiation Reports,* August 1932 – Year of 1936.

Fld 2 *The Physical Review Articles,* March 1, 1935 – October 15, 1940.

Fld 3 " A Hypothesis as to the Origin of Cosmic Rays and the

Experimental Testing of it in India and Elsewhere," *Current Science,* Vol.10, No 9, September 1941, 393-394.

Fld 4 "Cosmic-Ray Radio Sonde," *The Review of Scientific Instruments,* Vol.13, No.4, April 1942-September 1946, 143-147.

Fld 5 " AAF Officers Technological Education," *(Galcit Preliminary Report)* March 1,1946. 1-32.

Fld 6 "Study of the Upper Atmosphere by Means of Rockets," *JPL, California Institute of Technology,* Publication No.8, Copy No. 39, June 20, 1947, 1-30.

Fld 7 "Reluctance Gages for Telemetering Strain Data," *Experimental Stress Analysis,* 1947. 74-77.

Fld 8 The Atomic Energy Commission, (Copy with Correspondence) October 4, 1948.

Fld 9 Discussion of Telemetering System, May 11, 1954.

BOX 2

Fld 10 "Earth Satellite Program: How, When and Why the United States will begin its First Scientific Observations of Outer Space," *Engineering and Science*, Vol. 19, No. 8, May 1956, 13-18.

Fld 11 Material submitted to *Aviation Week*, April 1957.

Fld 12 "Project Vanguard," *IGY Article,* April 17, 1957.

Fld 13 "High Speed Geiger Counter Circuit," *IGY Article,* April 1957.

Fld 14 "Project Vanguard-Earth Satellite Program," *Engineering and Science,* Published at the California Institute of Technology, Pasadena, California, June 1957, 12-13.

Fld 15 "United States Satellite Tracking Program," *National Academy of Sciences,* June 27, 1957. 1-10.

Fld 16 "Tracking the Red Satellite," *Electronic Week*, October 14, 1957, 7-8.

Fld 17 "Satellites, Let's Face up to the Fact that the Russians are Ahead of Us. So what do we do about it? *Engineering and Science,* Vol. 21, No.3, December 1957, 16-17.

Fld 18 "Management Techniques for the Management and Development of Weapon Systems," *Industrial College of the Armed Forces,* Washington, D. C., L58-90, January 22,1958, 1-22.

Fld 19 Statement for *Astronautics Magazine,* September 19, 1958.

Fld 20 "Results of IGY Satellite Program," *JPL, California Institute of Technology,* Pasadena, California, November 1958, 1-10.

{PRIVATE **}{**tc \l 2 "BOX 3"**}**Fld 21 "Some Results from the Pioneer III Flight," *JPL, California Institute of Technology,* Pasadena, California, November 1958, 399-402.

Fld 22 "Public Fears and Race into Space," *Armed Forces Management,* Published for the Army, Navy, Air Force, Coast Guard and Marine Corps, April 1959, 12-13

Fld 23 "Scientific Aspects of Satellite," *American Rocket Society,* Jet Propulsion Laboratory, May 1959, 1-11.

Fld 24 "Missiles, Rockets and Space Flight," *Electrical Engineering,* December 23,1958 – May 1959, 449-459.

Fld 25 Interview: *Friends Magazine*-WHP, November 20,1959

Fld 26 National Academy of Sciences – Committee, September 13, 1963 –

October 30, 1964.

Fld 27 National Academy of Sciences – Committee, November 23,1963 – June 17, 1966

Fld 28 National Academy of Sciences – Committee (correspondence), January 20, 1966 – April 23,1968.

BOX 3

Fld 29 National Space Club – (correspondence), November 5, 1929 – May, 1967.

Fld 30 Astronautics Engineer Award Committee National Space Club, January 4, 1967 – April 17, 1967.

Fld 31 National Academy of Sciences – Committee (correspondence), April 3, 1968 - August 1, 1968.

Fld 32 National Academy of Sciences – Meeting Minutes, June 30, 1968 – October 30, 1968.

Fld 33 National Academy of Sciences – (correspondence), September 25, 1968 - October 17, 1968.

Fld 34 The National Space Club – (correspondence), October 24, 1968 - December 30, 1969.

BOX 4

Fld 35 Pasadena Science Museum Committee (correspondence), November 14, 1966 – July 15, 1968.

Fld 36 Pasadena Chamber of Commerce (correspondence), March 8, 1966 – October, 1969.

Fld 37 Pasadena Chamber of Commerce (correspondence), June 3, 1969 - September 30, 1969.

Fld 38 National Academy of Sciences (correspondence), June 30, 1969 - October 9, 1969.

Fld 39 National Academy of Science (correspondence), October 10, 1969 - April 27, 1971.

{PRIVATE }Catalog Description{tc \l 1 "Catalog Description"}

Pickering, William H., 1910-
Publications Collection, 1932-1971.
1.03 c.f. in 39 flds.
Includes correspondence, news reports, research materials, and inner-office memoranda relating to

Pickering's career as an associate member of the National Academy of Science, Pasadena Chamber of Commerce, National Space Club, Pasadena Science Museum Committee and a Coffin Fellow. Also, includes publications and journal articles he wrote on Atomic Energy, Cosmic Rays, Missiles, Rockets and Space Flight and Cosmic Ray Radiosondes. Additionally, it includes a report on *A Geiger Counter Study of the Cosmic Radiation,* while attending California Institute of Technology in 1936, and *A Study of the Scattering of Cosmic Rays;* he co-wrote with Brian O. Sparks in 1933 as a Coffin Fellow.

Finding Aid is available in the Archives

Tracings
Jet Propulsion Laboratory-History
Office of the Director-History
National Academy of Science
Pasadena Chamber of Science
Pasadena Science Museum Committee
National Space Club

Accession 92-40